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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,165	10/02/2000	Roozbeh Atarius	34650-00443USPT	4119

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EXAMINER

CORRIELUS, JEAN B

ART UNIT PAPER NUMBER

2637

DATE MAILED: 08/04/2004

[Handwritten mark]

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,165

Applicant(s)

ATARIUS ET AL.

Examiner

Jean B Corrielus

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14,17-25,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-25,27 and 28 is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 13 is/are rejected.
- 7) ☒ Claim(s) 2 and 8-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

Allowable Subject Matter

1. The indicated allowability of claims 1, 3-7 and 11 is withdrawn in view of the following discovered reference(s) to Zhou et al, EP 0757450 A2; Philips US Patent No. 6,597,727 and Ostberg Us Patent No. 6,542,562. Rejections based on the above cited reference(s) follow.

Claim Objections

2. Claim 17, line 2, before "sampled", ",", needs to be deleted. Claim 22, line 4, "a highest" should be "the highest". Claim 27, line 2, "the" should be "an". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou In view of Phillips et al US Patent No. 6,597,727.

Zhou et al discloses a method and apparatus (fig. 1) comprising receiving a signal at the input of the receiver (fig. 1) processing the signal to produce at least one first location using circuits (MF and TH) processing said signal (input of the receiver)

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and a generated code (output of DLL1) using said first location (output of TH/peak) to produce one second location. However, Zhou does not teach the further step of decimating the signal prior to generating the first location (peak). In the same field of endeavor, Philips discloses the further step of decimating the signal using element 240 prior to generating the first location (peak) at the output of the correlation circuit 234. given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Zhou in order to reduce system complexity and at the same time enhance processing speed as a portion of the received signal would have been process by the receiver.

As per claim 3, Philips teaches the used of oversample clock signal to sample the incoming signal see col. 17, lines 28-47. note that oversampling involves the sampling of the incoming signal at a rate multiple of the highest frequency of the incoming signal or a rate multiple of the chip rate. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Zhou so as to satisfy system requirement.

As per claim 4, note at col. 15, lines 40-41, that the system can be CDMA system. Given that, it would have been obvious to one skill in the art to incorporate such a teaching in Zhou and the reason to do so would have been that same as provided above in reference to claim 3.

As per claim 5, the signal is applied to one filter (MF) to produce the first location.

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As per claim 6, note that at col. 18, lines 18-24 that Philips teaches that the a FIR filter is used in combination with the decimation filter. Given that it would have been obvious to one skill in the art to incorporate such a teaching in Zhou the reason to do so would have been that same as provided above in reference to claim 3.

As per claim 7, an output of the filter (MF) is applied to a peak detector (TH) to determine the first location (output of the peak detector (TH)).

7. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou In view of Phillips et al US Patent No. 6,597,727 and further in view of Ostberg et al US patent No. 6,542,562.

As applied to claim 1 above, Zhou and Philips disclose every feature of the claimed invention but do not explicitly teach the further limitation of forwarding the second location to rake fingers to enable subsequent maximal ratio combining of said signal. Ostberg teaches the further limitations of forwarding the location signal (output of the peak detector) to rake fingers to enable subsequent maximal ratio combining of said signal see fig. 1. given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Zhou and Philips in order in order to overcome multipath characteristics in the mobile radio channel.

Allowable Subject Matter

8 Claims 14, 17-25, 27 and 28 are allowed.

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9. Claims 2, 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306

(for informal or draft communications, please label "PROPOSED"
or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is (703) 305-4023. The examiner can normally be reached on Monday-Thursday from 7:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (703) 308-7728.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.



Jean B. Corrieus

Primary Examiner

TC-2600